(11) MAY 08 1985 12

United States Department of the Interior

FISH AND WILDLIFE SERVICE
ROCK ISLAND FIELD OFFICE (ES)
1830 Second Avenue, Second Floor
Rock Island, Illinois 61201

IN REPLY REFER TO:
COM: (309) 793-5800
FTS: 386-5800

April 30, 1985

Mr. Mike McCarin
Mr. Randal Ekstrom
Ecology and Environments
111 West Jackson Avenue
Chicago, Illinois 61604

Dear Sirs:

This responds to your request for information regarding endangered species utilization of certain areas in Bureau and Ogle Counties, Illinois.

To facilitate compliance with Section 7(c) of the Endangered Species Act of 1973, as amended, Federal Agencies are required to obtain from the Fish and Wildlife Service information concerning any species, listed or proposed to be listed, which may be present in the area of a proposed action. Therefore, we are furnishing you the following list of species which may be present in the concerned area:

Classification	Common Name	Scientific Name	Habitat
Endangered	bald eagle	Haliaeetus leucocephalus	wintering
Endangered	Indiana bat	Myotis sodalis	summer, nursery and feeding

There is no designated critical habitat in the project area at this time. Both species are listed for both Ogle and Bureau Counties. The bald eagle winters along large rivers such as the Illinois and occasionally the Rock. They feed in open, ice free areas, perch in large riparian trees and roost in protected ravines leading away from the river which are heavily forested. We are unaware of any roost sites within three miles of the sites in question.

The Indiana bat utilizes small stream corridors with well developed riparian zones consisting of mature trees (generally greater than 16 inches in diameter). They roost and rear their young under the loose bark or in cavities of dead or dying trees. They feed over the stream by flying underneath the overhanging forest canopy, occasionally dropping to the water surface to drink. We have enclosed guidelines for assessing Indiana bat habitat and conducting surveys should it become necessary.

This letter provides comment only on the endangered species aspect of the project. Comments on other aspects of the project under the authority of and

in accordance with the provisions of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et. seq.) may be sent under separate cover.

Sincerely,

Thomas M. Groutage

Thomas M. Groutage
Field Supervisor

Enclosure

cc: SE-Region 3

GUIDELINES FOR INDIANA BAT SUMMER HABITAT SURVEYS TO BE USED IN BIOLOGICAL ASSESSMENTS UNDER SECTION 7 OF THE ENDANGERED SPECIES ACT OF 1973, AS AMENDED

Purpose

The purpose of these guidelines is to provide standards for evaluating Indiana bat summer habitat which is needed because of an action carried out, permitted or funded by a Federal agency.

Applicability

These guidelines apply when riparian (creek-side) forest along streams or drainage ditches is being impacted within the range of the Indiana bat (see Figure 1).

Characterization of Riparian Habitat

Visually classify the riparian habitat into the following categories (Cope, 1978).

a. Category I - No trees on either bank.

b. Category II - Scattered small trees (less than 16 inches dbh) on either bank.

c. Category III - Mature trees (greater than 16 inches dbh) on one bank only.

d. Category IV - Mature trees (greater than 16 inches dbh) on both banks but not extending past the edge of the stream.

e. Category V - Mature trees (greater than 16 inches dbh) more than 3 meters past (overhanging) the stream bank on both sides.

Each kilometer of riparian habitat should be placed into the category to which it is most similar. The resulting data should be presented visually by placing

the appropriate category on a map (preferably a 7.5 minute USGS quadrange map) as well as tabularly so that the amount of the stream in each category can be computed easily.

Potential roost trees (large, recently dead trees with loose bark) should be located on the map as well.

The forest vegetation should be briefly described (species composition, tree size, etc.) as well as the general conditions (virgin, second growth, grazed, logged, etc.). The width of the riparian/flood plain forest should be noted.

Live Trapping Bats

Trapping should be done using methods described by Cope (1978). Mist nets should be placed over the stream perpendicular to the bank and positioned so that the nets most nearly close the area beneath and between the stream-side vegetation. The nets should reach from the water surface to the bottom of the canopy creating a "wall" of nets. Nets should be opened at sundown and tended at 15-minute intervals until at least midnight.

Trap sits should be locted in Category IV habitat, if available, and should be located about 1 kilometer apart. A variety of ultrasonic bat detection devices can be used to determine the presence of bats in the immediate vicinity. Recent improvements may allow observers to identify individual species (J.N. Fentor, 1981). Each location should be netted for one night of good weather when the stream is at normal flow or lower (not during flood conditions). Netting could be done between 1 May and 31 July. Sex, age (adult or immature) and reproductive condition of each Indiana bat as well as the flight direction and the height at which the bat hits the nets should be recorded and captured bats should be released immediately.

Characterization of Stream

The following parameters should be measured for the stream or ditch at each netting location:

a. Width of stream bed.

b. Depth of water.

c. Bottom type (gravel, mud, sand, etc.).

d. Riffle/pool frequency (how far apart).

e. Man-made alterations.

f. Water quality (clarity, presence of aquatic insects, pollution, etc.).

Population Estimates

Although few nursery colonies have been discovered, rough population estimates can be made using flight counts during emergence from the roost. In Indiana, near a nursery site with 50 adult females, Humphrey et al. (1977) found 60 Indiana bats per kilometer of suitable stream. Cope et al. (1978) reported two nursery colonies along the Big Blue River in Indiana consisting of 100 and 91 bats each. They suggested that as many as 90 Indiana bats may occur per kilometer of suitable stream and that a figure of 75 per kilometer of suitable stream.